

Practise making perfect: The Canadian Academy of Health Sciences Impact Framework

FORUM PROCEEDINGS REPORT (October 19, 2015 – Edmonton, Alberta)

Hosted by Alberta Innovates - Health Solutions (AIHS) in partnership with the National Alliance of Provincial Health Research Organizations (NAPHRO)





ACKNOWLEDGEMENTS



DEDICATION

This proceedings report is dedicated to the memory of **Dr. Cyril (Cy) Frank**. His legacy of leadership and transformative vision for better health and a better health system for Albertans, Canadians and the world was an inspiration to us all. A man of many achievements, notably it was with Cy's leadership that the CAHS Impact Framework was developed. His dedication to supporting the understanding of what works in health research and innovation helped to elevate Canada to a position of international stature in health research impact. Thank you, Cy, for sharing your wisdom and encouraging us to push the boundaries of what we know and what is possible.

Thank you to all who have supported the growing community of practice (CoP) by making the forum possible and contributing to this proceedings report. Thank you also to everyone who took time out of their busy day to attend the inaugural event and contribute to the conversations: a list of delegate contacts is available in Appendix II (page 35). We hope you found the interactions valuable and that the conversations continue.

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And thanks to Lee Elliott for compiling this proceedings report. The report is intended to be a resource for the CoP. Contact pme@aihealthsolutions.ca with questions, comments, and/or to learn more about the growing CoP in health research impact assessment among those who have implemented the Canadian Academy of Health Sciences (CAHS) Impact Framework and/or those who want to learn more about how to do so.

ACRONYM LIST

AIHS	Alberta Innovates – Health Solutions
CAHS	Canadian Academy of Health Sciences
CIHR	Canadian Institutes of Health Research
CoP	Community of Practice
HRIA	Health Research Impact Assessment
NAPHRO	National Alliance of Provincial Health Research Organizations
SCN	Strategic Clinical Networks
SPOR	Strategy for Patient Oriented Research
SUPPORT	Support for People and Patient-Oriented Research and Trials (SUPPORT) Units

Note: The Canadian Academy of Health Sciences (CAHS) Impact Framework is referred to in the report as the CAHS Impact Framework or the Framework.



Photos within the report feature forum speakers and attendees.

FORWARD



Dr. Pamela Valentine

Interim Chief Executive Officer (CEO), Alberta Innovates - Health Solutions (AIHS)

Alberta Innovates – Health Solutions (AIHS) is pleased to have hosted the *Practise Making Perfect: the Canadian Academy of Health Sciences (CAHS) Impact Framework Forum* in partnership with the National Alliance of Provincial Health Research Organizations (NAPHRO). It's an exciting time to be involved in health research impact assessment (HRIA) as decision makers, funders, researchers and evaluation practitioners worldwide work to get a greater understanding of the pathways from research to impact.

At AIHS, we share your passion for learning and for sharing knowledge on how to more effectively engage stakeholders in assessing the impact of our research investments. AIHS is committed to moving and acting in partnership. We look forward to collaborating with all of you in strengthening the science of HRIA.



Dr. Kathryn Graham

Executive Director, Performance Management & Evaluation, AIHS

This forum builds on the pioneering work of Dr. Matthew Spence, former President and CEO of the Alberta Heritage Foundation for Medical Research (AHFMR, now AIHS). In 1999 Dr. Spence brought Martin Buxton to Alberta to assess the returns on health research investments using the Payback model, and convened an inaugural "bang for the buck" workshop to investigate how best to measure the value of research.

The CAHS forum builds on this legacy and was designed to bring together a national community of practice (CoP) in HRIA, using the CAHS Impact Framework as a starting point for a shared language. Using this framework, we can develop clear impact questions, metrics, and tools in collaboration with our stakeholders to inform policy, practice and decision making.

The forum and this proceedings document were designed to inform a common understanding of why the Framework was developed, what it involves, who is using it, and where we, as a CoP, can go next with it. I look forward to learning with you as we continue to push the boundaries and evaluate research impact nation-wide.



Renata Osika

Executive Director, National Alliance of Provincial Health Research Organizations (NAPHRO)

Since the 2009 release of the CAHS Impact Framework, NAPHRO partners have worked together to demonstrate the benefits of a shared approach to research impact assessment. Fostering and sharing of best practices is at the heart of what NAPHRO represents.

Partnering with AIHS to bring together the users of the CAHS Impact Framework, NAPHRO remains confident that this inaugural meeting of the CoP will be an important catalyst in the national dialogue on continued investment in health research. We look forward to seeing the community grow in number and influence across all provinces, and we invite all interested to join this collaborative initiative.

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EXECUTIVE SUMMARY

Canada, and Alberta in particular, are becoming world leaders in the new and rapidly growing science of health research impact assessment (HRIA). HRIA goes beyond measuring outputs to capture the outcomes and broader benefits that result from health research.

Governments worldwide including the United Kingdom (UK; Research Excellence Framework¹), European Union (EU; Productive Interactions²), United States (e.g., Star Metrics³), Australia (Excellence in Research for Australia⁴) and Canada⁵ have commissioned the development of frameworks to trace the impacts of public investment through the health research ecosystem. The ultimate impact society aims to achieve through investment in health research are improved health systems and broader health, social and economic impacts.

The most widely used framework of research impact assessment is the Payback Model first published by Buxton and Hanney in 1996.⁶ Alberta has a strong history in HRIA and was an early adopter of the Payback Model.⁷ The CAHS Impact Framework (based on the Payback Model) was the work of the Canadian Academy of Health Sciences (CAHS), a national organization established in 2005 with cardiologist Dr. Paul Armstrong from Alberta serving as its first president. The late Dr. Cy Frank, former president and Chief Executive Officer of Alberta Innovates—Health Solutions (AIHS), was called on to chair the panel that published Making an Impact: A Preferred Framework and Indicators to Measure Returns on Investment in Health Research in 2009.⁵

Practise making perfect: The Canadian Academy of Health Sciences (CAHS) Impact Framework

Forum, held October 19, 2015 in Edmonton, was an inaugural event that brought together nearly 70 individuals representing funders, researchers, health services professionals, not-for-profit representatives and industry partners. The purpose of the forum was to convene the diverse groups to learn from each other about how the CAHS Impact Framework is generating results, how others are using it in practice, and to explore how it can be used even more effectively and broadly moving forward.

It is fitting that the forum was presented by AIHS in partnership with the National Alliance of Provincial Health Research Organizations (NAPHRO), a perfect fit for a pan-Canadian initiative aimed at broad societal impacts.



DELEGATE PROFILE AND FORUM OUTCOMES

PROFILE OF THE 68 DELEGATES

SECTOR AFFILIATION

43% Funders
18% Academia
15% Healthcare/Services
15% Other (Not-for Profits, Industry)
10% Government

GEOGRAPHIC LOCATION

76% Alberta-based

24% National

13% Ontario

- 4% British Columbia
- 1% Saskatchewan; Manitoba; Quebec and Nova Scotia

PRIOR CAHS IMPACT FRAMEWORK EXPERIENCE

20% No prior knowledge/experience 49% Novice

22% Experienced

9% Advanced

FORUM OBJECTIVES

NETWORK

To connect current and potential users of the CAHS Impact Framework in Canada

KNOWLEDGE EXCHANGE

To exchange information regarding the CAHS Impact Framework's implementation and use

BUILDING A COMMUNITY

- To identify needs of the CAHS Impact Framework user community (to advance application and learning)
- To explore opportunities to work together to further develop capacity to implement the Framework

INTENDED OUTCOMES AND RESULTS

New professional contacts are established; existing professional connections are renewed or enhanced

DELIVERABLE: Delegate contact list (see page 34)

RESULT: 94% of delegates reported new and/or renewed contacts and were satisfied with the opportunity to network and engage in discussions.

Delegates' awareness of others doing similar work in impact framework implementation is increased

DELIVERABLE: New knowledge captured in speaker presentations and video; synthesis of forum discussions and learning in proceedings report.

RESULT:

- 88% of delegates reported improved awareness of the CAHS Impact Framework
- 81% improved their **understanding** of the Framework's implementation in different contexts
- 75% increased their knowledge of existing practices in the Framework's implementation

OVERALL DELEGATE FEEDBACK

32 OF THE 68 (47%) RESPONDED TO THE POST-FORUM SURVEY

- 97% Overall satisfaction
- 97% Satisfied with the opportunity to learn
- 84% Recommend the event to others
- 71% Interested in becoming a member of the HRIA CoP

WHY?

Why do we need a Canadian health research impact framework?



Dr. Paul Armstrong

Globally, public and private investors want to know if they are getting a return on investment in health research. There are concerns about lack of evidence for health care decisions and a seeming

disconnect between health research investments and improvements in population health.

These concerns are the key drivers behind the development of an impact measurement framework for health research investment in Canada. But these aren't the only reasons according to Dr. Paul Armstrong. He sees the need to facilitate the workings of a very large system. "Learning health care systems should exemplify the cycle of guality that informs learning and health care," says Armstrong. "It begins with discovery and preclinical science, proof of concept studies, clinical trials, the emergence of guidelines, the assessment of performance and registries, the assessment of outcomes by population health and the recognition of the unmet need that then further fuels the need for new questions and the research needed to answer those questions."

"This cycle of quality involves all of us and it is the only way, in my judgment, that we will make progress," says Armstrong.

Armstrong believes "running such a large scale learning system requires a strong, evidence-based view of the way the system is working. This view will also support personalized or what's now called precision medicine."

New Zealand

"When it comes to research [and innovation], governments the world over are asking more questions about whether they are getting value for money...whether it is done implicitly or explicitly, everyone in that process is thinking about impact."⁸

Peter Gluckman, Chief Science Adviser to the Prime Minister of New Zealand

United States

Our national clinical research system is well intentioned but flawed:

- High percentage of decisions not supported by evidence⁹
- · Health outcomes and disparities are not improving
- Current system is great except:
 - Too slow, too expensive, and not reliable
 - Doesn't answer questions that matter most to patients
 - Unattractive to clinicians and administrators

"We are not generating the evidence we need to support the health care decisions that patients and their doctors have to make every day."¹⁰

> Robert Califf, Deputy Commissioner US Food and Drug Administration

Canada

"With greater investment in health research, the public has increased expectations for returns: better health, greater life expectancy, translation of research findings into improvements in quality of life, informed public policy across the full spectrum of private and public activity, new commercial opportunities, increased attraction of next generation health researchers and practitioners, better state of readiness for unexpected health threats."

Cy Frank, Chair of the Canadian Academy of Health Sciences Assessment Panel on the Returns on Investments in Health Research Armstrong referenced a recent discussion in the Lancet by Horne and colleagues¹⁴ about the four Ps of the future of the health enterprise: predictive, preemptive, personalized, and participatory medicine. In this piece, Horne and colleagues,¹⁴ reflect on the fact that truly personalized medicine must be tailored to the psychosocial modulators of motivation to engage more than just the genetic and biological profiles that have so much cachet. The authors call for a trans-disciplinary approach with links across the full spectrum of sciences;¹⁴ these would include medicine, science, law, ethics, economics, and behavioral and social sciences.

Such an approach requires a new social contract¹⁴ between health care innovation and society, says Armstrong.

How was the CAHS Impact Framework developed?

The genesis of the Canadian Academy of Health Sciences (CAHS) Impact Framework lies within the establishment of the Academy in 2005 by then Prime Minister Paul Martin, "at a time when Canada still had a chief scientific officer," says Armstrong, wryly. Armstrong was appointed the first president of the national academy.

The CAHS was established to provide advice on and assessments of key issues relevant to the health of Canadians. This is reflected in the CAHS mission, namely to:

- Serve as a credible expert and independent assessor of science and technology issues relevant to the health of Canadians
- Support timely and informed strategic advice
- Facilitate the development of sound public policy
- Enhance the public understanding of science and technology issues
- Be a single authoritative and informed voice for the health science communities
- Represent Canada internationally

This cycle of quality involves all of us and it is the only way we will make progress.

The not-for-profit CAHS is not an advocacy group, "other than to advocate for the health of Canadians: it is independent, not invested and unbiased" according to Armstrong. "The CAHS operates with an advisory board of 13 and includes a 600 strong collaboration of multidisciplinary health science professionals in all the traditional disciplines as well as scholars in such areas of health law ethics and psychology among others. It is a rich mixture of all those who dedicate their working lives to the health professions," says Armstrong.

The CAHS joined with two existing academies— The Royal Society of Canada and The Canadian Academy of Engineering—to form The Council of Canadian Academies (CCA). The CCA does not provide recommendations, but the CAHS decided it must craft actionable options based on the evidence arising from its assessments.



Figure 1. Disciplines represented in CAHS

WHAT DOES CAHS MEAN BY ASSESSMENT?

"It involves an understanding of what we know about the science underlying an issue and more importantly what we do not know," says Dr. Paul Armstrong.

- · It defines what questions remain unanswered.
- It establishes a holistic view of complex issues and clarifies areas of concurrence, divergence and uncertainty where they exist.
- · It examines the validity of the sciences that inform that issue.

(First articulated by the working group that led to the creation of the three founding academies: The Royal Society of Canada, the Canadian Academy of Engineering, and the Canadian Academy of Health Sciences (CAHS).)

HOW DOES CAHS DETERMINE WHAT ISSUES SHOULD BE ASSESSED?

- The issue is timely, relevant and important in the public domain.
- It is a priority for the public and useful to inform government.
- It is of interest to the sponsor(s) of the assessment.
- Sufficient knowledge exists to facilitate decision making.

WHAT STEPS ARE INVOLVED IN A CAHS ASSESSMENT?

- · Choice of topic (and question)
- · Choice of chair
- Choice of assessment panel
- · Panel's independent work
- · Review of the draft report by external reviewers and the CAHS Assessment Committee
- Revision of the report
- Approval by CAHS Board

One of the first challenges the CAHS tackled was the question of return on investment (ROI) for health research. "There was little consensus on how and when to best evaluate return on research expenditures," says Armstrong, "and questions from policy makers about tangible results attributable to public investment." This was accompanied by uncertainty about the appropriateness of some public expenditures and a desire to strike a reasonable balance between investigator-initiated discovery research and targeted strategic initiatives.

Armstrong, relying on the valuable advice of Matt Spence, then president of the Alberta Heritage Foundation for Medical Research (now AIHS), formed a standing committee on assessments representative of the multidisciplinary flavor of the CAHS. He then recruited the Dr. Cy Frank to chair an international, interdisciplinary, blue ribbon panel (hereafter referred to as the Panel) to develop a preferred framework and indicators to measure ROI in health research. The Panel included members from across Canada, the United States, Australia, and the UK including Martin Buxton, one of the developers of the most commonly used assessment tool internationally: the Payback Framework⁶. Nationally, more than 20 organizations sponsored and/or otherwise contributed to the development of the CAHS Impact Framework (see page 15).



How was the work of the Panel focused?

The Panel was tasked with answering just one question:

Is there a best way (method) to evaluate the impacts of health research in Canada and are there best metrics for assessing (or improving) those impacts?

Indicator Selection Criteria:

- Be useful to a full range of funders and research types
- Be compatible with what is already in place in Canada
- Be transferrable to international comparisons
- Be able to identify the full spectrum of potential impacts

Sponsor expectations:

- Cover all types of funding
- Cover long range and global impacts
- Facilitate learning, not just audit
- Metrics developed should
 - Include human resources
 - Include non-monetary impacts
 - Include commercialization
 - Be relevant to all four Canadian Institutes of Health Research (CIHR) research pillars

"The Panel had to wrestle with thorny issues and complexities," according to Armstrong, including:

- Attribution issues (i.e., effects of things other than research)
- Counterfactual phenomenon (i.e., what would have happened without the research)
- Addressing time lags to impact with indicators that can track longitudinal results
- Double-counting of health research impacts
- The halo effect (i.e., only considering the positive impacts of research)

How the CAHS Impact Framework has moved forward

The CAHS Impact Framework was built using a logic model and the impacts approach of the Payback Model.⁶ The Panel then adapted that model into a systems approach.³

The Panel recommended all funders of health research in Canada use the CAHS Impact Framework and indicators, and that Canada continue to contribute to the new science of health research impacts. There are some things the CAHS Impact Framework can't do. It does not provide questions, or refine them, for example. And while there are 66 recommended indicators in the various domains of impact, more will be required.

Future challenges include building collaborations across organizations regarding the utilization and implementation of the CAHS Impact Framework, establishing nationally agreed upon standards (e.g., in the collection, analysis and reporting of impact indicators), and the further development, refinement and maintenance of the indicators library. Most importantly, according to Armstrong, when undertaking assessments of health research impact we must ensure we ask the right questions.

The CAHS Impact Framework was highlighted in the Canadian Medical Association Journal¹¹ and several websites including the Canadian Foundation for Healthcare Improvement, and the Centre on Knowledge Translation for Disability and Rehabilitation Research (KTDRR). The Framework was also incorporated into the CIHR strategic plans (2009-10 - 2013-14¹² and 2014-15 - 2018-19¹³). "It did receive attention and traction, but importantly, it has also had an impact internationally," says Armstrong. This claim is supported by evidence of the Framework's adoption and use elsewhere, e.g., Spain.¹⁵ and Australia.¹⁶





WHAT?

What is the CAHS Impact Framework? "Has the research made a difference?"



Kathryn Graham

In the words of Kathryn Graham, the plain language question that a research impact assessment is trying to answer is 'Has the research made a difference?'

It's a simple question. The real world of research and its impacts, however, is multi-dimensional, complex and full of feedback loops, so finding an answer is anything but simple.

The CAHS Impact Framework provides a roadmap to better understand this complexity by organizing it according to five impact categories (and sub categories) and provides a starting menu of 66 preferred indicators and metrics that can be used to assess impact.

Many countries have developed frameworks to determine whether research has made a difference, says Graham: for example, the EU,² US,³ and Australia.⁴ The most operationalized, according to Graham is the UK Research Excellence Framework¹. It is used by the UK higher education institutions to assess research excellence and for the first time, the UK began to assess the *impact* of research.

"What the CAHS Impact Framework gives us is a more focused approach to health research in the Canadian context," she says. It takes the Payback Model one step further and provides implementation tools to highlight the determinants of health. It also incorporates different theories, such as Everett Rogers' work on the diffusion of innovation.¹⁷

The CAHS Impact Framework

- A mechanism for linking research evidence to health impact
- A systems model customizable on multiple levels
- A common language for impact assessment
- A common set of tools

The Framework is a roadmap to trace research impacts from an initial context to an improved state across five impact categories with 66 associated indicators:

- 1. Advancing knowledge: four sub-categories of impact, 11 indicators
- 2. Capacity building: three sub-categories of impact, seven indicators
- 3. Informing decision making: four sub-categories of impact, 13 indicators
- 4. Health impacts: Three sub-categories of impact, 14 indicators
- 5. Broad economic and social impacts: Five subcategories of impact, 11 indicators

Organizations choose sets of indicators that are balanced, feasible, focused on mission and objectives, and relevant to their stakeholders.

[http://www.cahs-acss.ca/wp-content/ uploads/2011/09/ROI_FullReport.pdf] "The CAHS Impact Framework incorporates a theory of change, a logic model really, where research activity will produce results that will influence decision making to, in turn, affect health system and determinants that ultimately contribute to greater health and wealth," says Graham.

According to Graham, one of the most valuable features of the CAHS Impact Framework is that it links research evidence to the categories of health impact throughout all aspects of the health research system.

Researchers who work across boundaries have wider health and social impacts.

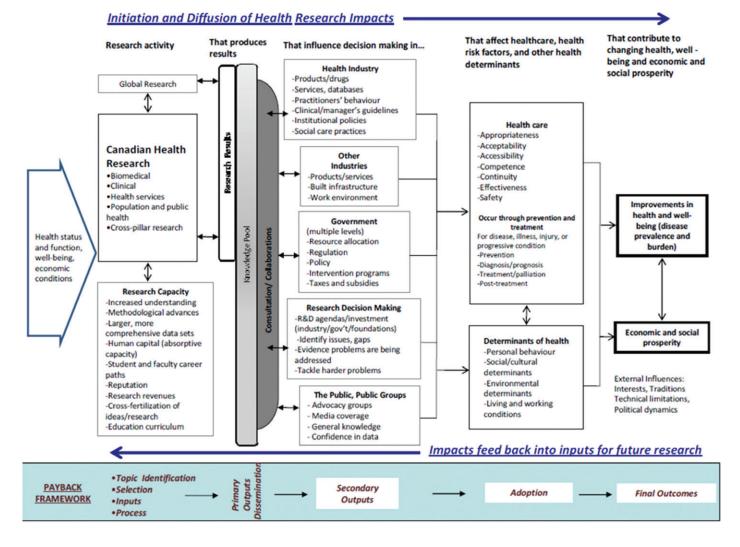


Figure 2. The CAHS Impact Framework

What steps are involved in using the CAHS Impact Framework?

1. Define and prioritize the specific evaluation question(s)

Paul Armstrong says the CAHS Impact Framework had to be built to accommodate an almost infinite number of possible questions. He gives the example of four that one might ask in relation to a research program or policy:

- Is there a need to increase the skill set of current Canadian health researchers?
- Do we have the need for more Canadian health researchers?
- Are our trainees producing high-quality research?
- Are our trainees disseminating their findings to a variety of appropriate stakeholders?

Kathryn Graham noted that in practice, it is critical to involve stakeholders at the stage of defining and prioritizing the impact assessment question.

The CAHS Impact Framework is useful in breaking down such a broad question into the steps needed to answer it, says Graham, but first, time needs to be spent articulating the specific impact questions that align with what stakeholders care about or what the sponsor has asked for.

"We could ask for example, how much health benefit are we achieving per dollar invested in cardiovascular research in Canada?"

Questions may be developed from the perspective of any of the five major stakeholder groups identified in the CAHS Impact Framework: government, industry, healthcare, research, and the public.

2. Use the CAHS Impact Framework to determine where to look for impacts

Once a question has been identified — How are we achieving national or provincial health benefits from funding national or provincial research? — one would refer to the CAHS Impact Framework to identify the pathway(s) that lead to the desired health benefits, and the areas within the system where evidence of the impact can be demonstrated and measured.

3. Based on the question(s) choose the impact categories and subcategories of interest

In her implementation example, Graham explained how a change to AIHS's mandate required it to be prepared to assess both traditional academic impacts (e.g., publication and training outputs) as well as the wider impacts of interest to its expanded stakeholder community. As a result, AIHS needed to assess impacts at multiple levels – project, program/portfolio, and organizational levels. To respond to these new requirements, the organization generated a number of indicators to supplement the 66 recommended indicators.

4. Choose sets of indicators that are appropriate

"The tension in selecting the best indicator is between precision and feasibility," says Graham.

Consistent with the CAHS Panel recommendations, Leah Phillips, a successful CAHS Impact Framework implementer (see her story on page 21), recommends the FABRIC approach be used to inform the selection indicators, and to ensure they are:

- Focused on the organization's aims and objectives
- Appropriate to stakeholders
- Balanced across work areas
- Robust and can withstand organizational changes
- Integrated with the business planning cycle
- Cost effective in terms of time, resources and funds

What the CAHS Impact Framework looks like in action

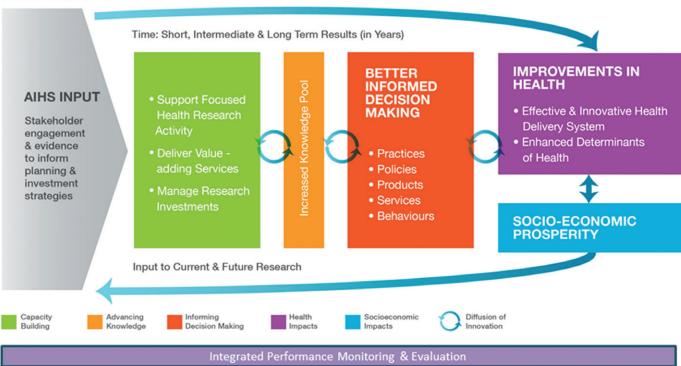
Impact assessments can be done prospectively, where researchers are asked to anticipate impacts, or retrospectively with historical tracing to link evidence to health benefits.

AIHS adapted the CAHS Impact Framework to incorporate a knowledge translation perspective and to focus on feedback loops "to show impact actually informs strategic planning as well as addressing need," says Graham. "We were interested in how we collaborate and how we engage," she says, "so we also linked processes to impact and integrated that within the Framework."

Examples

As a test of the Framework's validity and feasibility for adoption, AIHS reviewed the annual reports of more than 180 researchers.¹⁸ As a result of the retrospective review, AIHS demonstrated the Framework could be applied in a practiced-based setting, such as a funding organization, to capture and demonstrate the impacts of health research investment.¹⁸ In a second retrospective assessment of 25 years of data,¹⁹ AIHS participated in a three-year international case study to improve knowledge translation of mental health research.

The project found that "who is informing whom is an interesting question when you are working across long time lags of 25 years." One of the notable findings from the study was that researchers who work across boundaries have wider health and social impacts¹⁹.



AIHS Mission & Vision

Figure 3. The AIHS Health Research to Impact Framework

Is measuring impact an art or science?



David Phipps

David Phipps facilitated a human Likert scale poll among forum attendees in the morning session to quickly identify coffee drinkers versus tea drinkers, night owls and early birds, and those who found measuring impact more akin to a friendly or scary pumpkin.

In the process, he facilitated some great insight into the CAHS Impact Framework.

Is measuring impact an art or a science? What appeared to be polarization as participants clustered at the ends of the scale resulted in a level of agreement that measuring impact requires both science and a questioning insight more like that exhibited by professional artists.

Leah Phillips, director of research for the College of Licensed Practical Nurses of Alberta, quickly headed to the scientific side of the scale, while Maxi Miciak, Cy Frank Fellow: Impact Assessment at AIHS, went to the far artistic side of the scale.

"In terms of the CAHS Impact Framework, it's important we're using robust measures grounded in good science," says Phillips. These can be both qualitative and quantitative, "but it has to be measured in a precise way."

On the artistic side, Miciak says that, "even though we have frameworks that seem to outline the linear perspective, when we're applying them, there has to be a lot of room to respond and to change." She likened it to her partner's artistic practice and argues that if people don't have foundations, if they don't have skills, if they don't have methodologies, you don't get good art. Phillips agrees there is an art to "knowing your audience and understanding the social context you're working in," and that practitioners need flexibility to respond to the unfolding process and the variety of contexts in which health research is supported, conducted, used and assessed.

Example Likert Scale

1. Wikipedia has a user friendly interface.

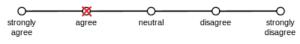


Figure 4. One application example using the Likert Scale.

International School on Research Impact Assessment

Kathryn Graham says Canada often looks to international models for best practice, but in the case of the new science of HRIA, "people internationally are looking to Canada."

"Training and capacity building is a very important part of the CAHS Impact Framework," says Graham. To facilitate that, researchers and funding agencies worldwide are learning about the Canadian framework and advancing the science of research impact assessment at the **International School on Research Impact Assessment** (ISRIA) co-founded by the Agency for Health Quality and Assessment of Catalonia (AQuAS, Spain), RAND Europe (UK) and AIHS.

ISRIA was first held in Barcelona, Spain (2013), then in Banff, Canada (2014), and most recently in Doha, Qatar (2015).

The next international school is planned for Australia, 2016. A local spinoff of ISRIA, *the AIHS Health Research Impact Assessment: An Intensive Training Course* was offered in Banff in 2015 and will be offered again in June 2016 (June 12-15, 2016).

Do you need to be a rock star or busker to communicate impact?



Patrick Odnokon, interim CEO of the Saskatchewan Health Research Foundation went to the rock star side of the scale. "We have to be rock stars to get people to follow us," he says. "It's got to be something big!"

Liz Fowler, national director of research for the Kidney Foundation of Canada, leaned more towards the busker side, "We need to communicate to a broad wide audience," she says, "and very specifically to the people being impacted by the research."



Jagdip (Jay) Jaswal, manager of academic initiatives for AIHS, went towards the busker side as well. "The rock star is communicating to a paying audience," he says. "They are already converted." Advocates of the CAHS Impact Framework, the HRIA community of practice (CoP), still have work to do in raising awareness of the Framework, facilitating understanding of how it can be used and the benefits that can result from its implementation: i.e., improved evidence-informed decision making.

WHO?

Who is already using the CAHS Impact Framework and where?



Nancy Carter

Director of REAL Evaluation Services Nova Scotia Health Research

Foundation

The REAL in Nancy Carter's title stands for Relevant, Excellent,

Accessible, and Legitimate. It is her standard for evaluation and she jokes that when she first saw the following diagram from the CAHS Impact Framework report, "It was like the world stopped...a little tear came to my eye...I was home."



Figure 5. Links between the three reasons for evaluating research⁵

She was home because this simple diagram helps her open a conversation about the "most often forgotten piece of evaluation"—determining why you are doing it in the first place, she says.

It makes evaluation theory simple, says Carter. She begins with the big questions: Are we doing this to be accountable, to learn, or to advocate? The answer can be one of the three, two, or all three, meaning the impact assessment can focus narrowly on one area, or on all three for a comprehensive evaluation.

The Nova Scotia Health Research Foundation (NSHRF) mapped its own logic model and broad outcomes to the CAHS Impact Framework: an example of this work can be found in Appendix IV. NSHRF then applied the model to a retrospective alumni study to evaluate the impact of their funding and support on alumni careers, and to an assessment of the CIHR reforms on the Atlantic Provinces.

The beauty of the CAHS Impact Framework, says Carter, is the way it facilitates conversations and understanding of the needs and expectations of stakeholders. It is applicable and adaptable to a variety of contexts, and there are ways to make the complex, theoretical framework accessible to a variety of users.



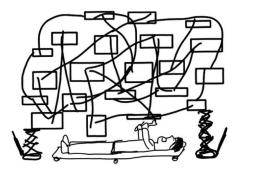
Leah Phillips

Director of Research College of Licensed Practical Nurses of Alberta

At the time of the forum, Leah Phillips was just two weeks in to her new post at the College, but spoke to extensive experience

using the CAHS Impact Framework in her previous role with Alberta Health Services where she served as assistant scientific director for three Strategic Clinical Networks (SCNs): Bone and Joint, Kidney, and Primary Health Care.

At the logic model repair shop ...





So, I'm guessing this is for a comprehensive program-level intervention

Figure 6. Logic Model Cartoon from freshspectrum.com

For three years, the SCNs have worked to develop joint performance metrics as an initial base for measuring research impact across six impact categories:

- Creating new knowledge
- Creating research capacity
- Informing decision making
- Proving (population) health benefits
- Improving health system effectiveness and efficiency
- Broader economic and social benefits

The SCN framework was simplified "to reflect that inputs should generate activities that provide outputs and lead to outcomes that result in impacts," says Phillips.

The CAHS Impact Framework is flexible, with a valuable how to logic model and abundant choice of indicators, she says. The downside is its perceived complexity and that not all metrics and indicators can be weighted equally. Users should be cautious that poor communication of assessment goals or purpose will lead to confusion, she says.

Lessons learned? "It won't be quick and it will be painful," says Phillips. "Don't rush. Start small by building a foundation." She advises communicating the rationale and process of the CAHS Impact Framework's implementation widely and to continually re-evaluate the Framework, metrics and indicators to ensure they are aligned to business goals and stakeholder needs.





Cheryl Currie

AIHS Translational Chair in Aboriginal Health & Wellness Assistant Professor of Public Health, University of Lethbridge

The purpose of Cheryl Currie's research is to improve Aboriginal

health, strength and resilience. Members of the Aboriginal community actively participate in her research, and individual community members are coauthors of published research.

"From my perspective, my job is to work side-by-side in partnership with Aboriginal communities to increase capacity to do rigorous research, implementation science, and evaluation, to empower them in this work, and then to slowly step back and allow communities to take the lead," says Currie. So Currie places heavy emphasis on accountability and advocacy to communities and funders. She also prioritizes analyzing and measuring the impact of time and resource allocations. "The community's time is limited and my time is limited," says Currie. "So we need to know what's working."

Her research team tracks their progress and contribution to health benefit in four of the five CAHS impact areas, eliminating broad socioeconomic impacts as impractical at the level of an individual research program. She has developed layers of indicators and metrics under each category that are tailored to her research team's program objectives and unique context.



"The greatest value of the CAHS Impact Framework is that it makes it possible to move beyond citations to evaluate researcher impacts on the ground," says Currie. "It also facilitates thinking outside the academia box and recognizes the value of building community capacity," she says.

Sample of impact category indicators – Cheryl Currie

Activity	Quality	Outreach	Uptake	
Publication count Publications in high quality outlets		Community co-authors	Benefit to communities	
Conference talks	Highly-cited publications	International co-authors	Benefit to researchers	
	Conference invitations	National and international invitations	Benefit to government and other organizations	
Bibliometric counts Bibliometric counts		Bibliometric counts	Qualitative peer review	

Advancing Knowledge in Aboriginal Health

Table 1. Sample of impact category indicators from Cheryl Currie's research program

What one thing can we improve on now?

Continue to build a community of practitioners adept at using the CAHS Impact Framework, says Currie. "It needs to be introduced earlier to trainees," and as a result, the next generation of researchers will think differently from the start.



Sean Rourke

Scientific and Executive Director Ontario HIV Treatment Network (OHTN)

Adaptation of the CAHS Impact Framework into the OHTN Framework for Impact Evaluations involved a strong research phase

to consider tie-ins with the network's strategic and program plans, consultations with directors and managers, feedback from a key advisory committee and research into other organizations that had adapted the Framework for their use.

"You don't do this in a vacuum," says Rourke. "You do it with your community, health professionals, and the people you serve."

"There are ongoing tensions between what could be collected and what is practical time wise to collect," he says. Continuing engagement with managers and directors is essential. And even in something as seemingly linear as the CAHS Impact Framework, "It's about the engagement and stories people tell," according to Rourke.

Rourke highlighted an example of the OHTN Framework for Impact Evaluations in action with a project titled Positive Places, Healthy Spaces. The research project showed that housing instability and inappropriate or unsafe housing are associated with poorer mental and physical health for people living with HIV. As a result of this work, influences and changes to provincial policies have been realized in Ontario.²⁰

- A housing provider used the findings to secure \$19M in government funding.
- A new provincial health subsidy now includes a rent supplement for people living with HIV who have mental health/addiction issues.
- Other Ontario housing providers have dedicated funding to at-risk people living with HIV.
- Ontario's Human Rights Commission referenced the study in a consultation on housing and human rights.

The CAHS Impact Framework drives reflection about processes, accomplishments and failings, says Rourke. "Even if it never perfectly captures the outcomes of everything we do."

Fiona A. Miller

Associate Professor of Health Policy University of Toronto

In the words of Fiona Miller, the CAHS Impact Framework "is really quite radical" in insisting

there are valued impacts beyond traditional measures such as publication numbers and trainees. It is, however, "fundamentally agnostic over whether or not any of those impacts are to be preferred" over others. Preferences really depend on the stakeholder's perspective.

Miller points to the recently published Naylor report, Unleashing Innovation: Excellent Healthcare for Canada²¹, which focuses on service and system change, industry engagement, and economic prosperity.

As impact frameworks are developed and stakeholders consulted, Miller says, preferences for one impact over another matter in a way they wouldn't if funds were unlimited. "Preferences will push us in different directions."

To test impact preferences, Miller designed a choice experiment²² and conducted a national survey of basic biomedical researchers and a representative sample of Canadian citizens to assess preferences and willingness to pay for research outcomes across five attributes:

- Advancing scientific knowledge (published papers)
- Building capacity (trainees)
- Informing decisions in the health products industry (patents)
- Targeting economic, health, or scientific priorities
- Cost

Were basic biomedical researchers and members of the public aligned in their preferences for impacts? Yes, and no, says Miller.

"They shared prioritization of scientific outputs, patents licensed by industry, and research targeted at health priorities," says Miller. The researchers, however, had stronger preferences for scientific outputs and priorities, while citizens had stronger preferences for patents as an impact measure.²²

The public had some concerns over commercial interests, says Miller. "Some activities are problematic and concerning." ²³

According to Miller, stakeholder preferences for impacts have implications for how we should assign incentives and value to research, how we set future research agendas, and how they will be assessed.



Tim Murphy

Vice President, Alberta SPOR SUPPORT Unit and Provincial Platforms

Tim Murphy is responsible for providing a wide range of platform supports to enable patientoriented research across Alberta:

patient engagement, data platforms, methods support and development, pragmatic clinical trials, knowledge translation, consultation and research services, and career development in methods and health services research.

Research funders face a rapidly shifting landscape with the recognition that stakeholders of health research go beyond the traditional academic research community, says Murphy. Research funders also face increasing expectation to provide return on investment evidence and be able to respond rapidly to emerging priorities.

SPOR Strategy for Patient-Oriented Research

SUPPORT Support for People and Patient-Oriented Research and Trials The Alberta SPOR SUPPORT Unit, jointly funded by CIHR and AIHS, uses the CAHS Impact Framework and its five impact categories in assessing its own work as it intersects with a complex system. "SPOR SUPPORT Units do not do research," says Murphy, "rather the SPOR SUPPORT units accelerate the impacts of patient-oriented research and help achieve the impacts faster."

The health research and innovation system needs a common agenda and shared measurement systems, according to Murphy. It also needs a great deal of integration and high quality change management. "The Framework is helpful in the identification of a theory of change and the challenges of change the system faces. SPOR is intended to bring about culture change to better enable the conduct of patient orientated research," he says.

The CAHS Impact Framework has the potential to offer tremendous value in understanding the resources required to support the changes and the system benefits that may result, says Murphy. However, there are broader health research and innovation issues, which must be addressed concurrently with the Framework's implementation to maximize the return on investment in its use and application. Murphy would like to see the establishment of case exemplars to illustrate the value proposition of the CAHS Impact Framework, including an understanding of the effort expended to implement, and the results or impacts achieved.





Rick Riopelle

Immediate Past Chair, Neurology and Neurosurgery

McGill University

Rick Riopelle and his colleagues have taken a pragmatic and demonstrably feasible approach

towards building a pan-Canadian neurotrauma network to standardize care that, consistent with NAPHRO directions, will bring the CAHS Impact Framework indicators to life for comparative return on investment (ROI) effectiveness.

Launched in 2011, the Spinal Cord Injury Knowledge Mobilization Network (SCI KMN) has come to represent a pan-Canadian exemplar for a value proposition of transformative clinical impacts for persons with lived experiences and for society. The Network synergizes evidence-based health and social sciences methods using the CAHS Impact Framework and standardized measures of cause, change, performance, and impact with potential for broad scaling.

Such synergy has, in the 2011-2014 timeframe, enabled the Network to achieve significant advances in adoption of best practice guidelines. As evidence of pan-Canadian care standardization in the domain of pressure ulcer risk assessment, the network's rehabilitation sites are meeting current (2015) Accreditation Canada Practice thresholds of 90 per cent compliance compared to approximately 60 per cent prior to the launch of the Network.



In the interests of maximizing ROI, a priority undertaking for the health system will be to create a national applied methods hub for neurological conditions. Such a hub, engaging both academia and persons with lived experience, is consistent with contemporary strategic directions emerging from Canadian Neurological Sciences Federation foundational principles. For example, such a hub could contribute to building public awareness about diseases, disorders and injuries of the nervous system, and inform advocacy efforts for improved public policy, support for research and support for research uptake mechanisms modeled after the SCI KMN.





HOW?

How is the CAHS Impact Framework being used?



Deanne Langlois-Klassen

Associate Director, Performance Management and Evaluation Alberta Innovates - Health Solutions

Initial results from the AIHS Annual Impact Report: 2014-15 were revealed at the forum. Data for the report was obtained through

the implementation of a new electronic impact data collection system, *Researchfish*[®].

AIHS is the first organization in the Western Hemisphere to implement *Researchfish®* to capture and report on the results of its investments in health research. *Researchfish®* includes 16 outcome categories that "aligned extremely well to the five impact categories in the CAHS Impact Framework," says Langlois-Klassen. Langlois-Klassen says this system, with its alignment to the CAHS Impact Framework, can greatly assist in increasing understanding "about what's happening in the health research eco-system." *Researchfish®* enables AIHS to report on the outputs and outcomes of the research it supports across all areas of impact.

For example, *Researchfish®* collects information about medical products, interventions and clinical trials that AIHS researchers attribute to their AIHS research, and tracks that information over time to monitor progress towards impact.

Researchfish[®] supports generating comprehensive and customizable impact reports at various levels that can be tailored to the needs of different stakeholder audiences.

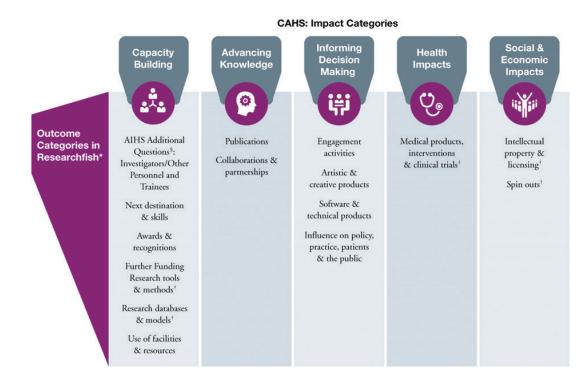


Figure 7. AIHS Resarchfish® impact categories mapped to CAHS Impact Framework categories



Patrick Odnokon

Interim Chief Executive Officer

Saskatchewan Health Research Foundation (SHRF)

Patrick Odnokon says conversations on return on investment too often

turn to a bad echo of the Jerry Maguire movie, 'show me the money! Show me the money!'

"I'd rather show you the impact and tell the whole story," says Odnokon. The CAHS Impact Framework makes this possible, he says, whether to government, boards, stakeholders, or colleagues.

Odnokon has used the CAHS Impact Framework to explain the process of research to the lay public, whether they are a lawyer or the Minister of the Economy. He has also used the Framework to assess major organizational strategies (e.g., a review of the value of Aboriginal Health Research in Saskatchewan,²⁴ and programs (e.g., a five-year review of the Saskatchewan Research Chair in Alzheimer's disease and Related Dementias).

> This is a service to our partners, our government, and our colleagues.

The CAHS Impact Framework supports government advocacy, board accountability, and conversations with partners on allocations, as well as internal analysis, says Odnokon. It allows funders to take on a greater role in informing decision making.

"Adoption of the CAHS Impact Framework has permitted SHRF to provide better service to our partners, to our government, and to our colleagues."



Kit Johnson

Executive Director, Research Priorities and Implementation

Research Innovation and Analytics, Alberta Health Services

Kit Johnson says Alberta Health Services (AHS) uses the CAHS Impact Framework to inform decisions and measure progress.

At AHS, the development of indictors and metrics (which are at the early stages of development) assist in informing decisions on the following:

- Planning and allocation of operating resources
- Long-term planning
- Strategic partnerships with external organizations
- Gaps that need to be addressed in the research agenda

According to Johnson, it is a challenge to provide AHS decision makers with ready access to good research information (data) to provide an understanding of the investment and inform strategic decisions that affect Albertans. The CAHS Impact Framework provides an important first step.

AHS began implementing the CAHS Impact Framework in its SCNs where it helped establish a common agenda and align the research work of the SCNs with the AHS strategic plan. "It provided the SCNs with a common language and a shared measurement system," says Johnson, which could be expanded to the larger AHS research community, "assuming that the backbone of measurement can be maintained and we can expand the CAHS Impact Framework across all domains."

There are some challenges in implementing the Framework in the province-wide health system, admitted Johnson. There is a learning curve to understand the Framework and it will take time and a sustained funding commitment before it is understood and embraced across the organization.

Indicators to measure the translation of research knowledge into operational changes are also lacking. These indicators would capture an essential part of the work that is underway within AHS. There are still cultures of silos across Alberta organizations that prevent sharing of information and resources. AHS' initial efforts at implementing the CAHS Impact Framework will be shared widely with AHS, universities, and partners and results will be posted for the public on the AHS website.



Melanie Winzer

Manager, Planning, Reporting, Measurement & Data Canadian Institutes of Health Research (CIHR)

The CIHR performance measurement (PM) regime toolbox is a corporate wide, all-encompassing measurement regime facilitating consistent reporting across all of CIHR.

The CIHR PM toolbox incorporates the five CAHS Impact Framework categories, adding one impact stream for CIHR accountability, and has roughly 80 measures with clear data sources.

CIHR learned a number of lessons during implementation of the CAHS Impact Framework as follows:

- It was important to allow a mix of the CAHS Impact Framework indicators and programspecific indicators to promote buy in and adoption of the PM toolbox by program stakeholders.
- 2. Clear accountabilities were needed to assist CIHR in maintaining the toolbox and relevant data.
- Longer-term outcome measures in the Framework were less likely to be selected as key performance indicators for CIHR initiative measurement as the data was less likely to be available and also there were attribution concerns.
- 4. The measures can be applied from multiple perspectives (i.e. gender, official language, disease), which allows for variability in reporting, as well as potential for external comparisons.
- 5. A Darwinian approach to indicators is required, with an annual review to remove indicators not being used and add new ones. This also allows for improvements to be made on data sources and with regards to methodologies.

The benefits of adopting the CAHS Impact Framework into CIHR's Performance Management regime toolbox to date have included consistent reporting, tie-ins with strategies and data, senior management buy-in, re-investment in data and new approaches/methodologies. CIHR has also been able to inform federal government policy changes.

An example of this is the recent review of the Evaluation Policy by the Treasury Board Secretariat of Canada (TBS). A report on TBS's findings from consultations across government has identified CIHR's PM regime toolbox, and with it, the CAHS Impact Framework as a "department of example" in performance measurement and demonstrating results. The report is in the final stages of approval and is anticipated for release in late fall of 2015 or early 2016.

Some barriers include measures based on external data sources that are not maintained, the difficulty of maintaining confidence in long-term impact results, and the fear of failure in ultimately meeting the broad social and economic impacts.

Communication, input and feedback, and flexibility in adoption all help with buy-in, says Winzer. The data and results will take you from concept to commodity, "and tell a good story beyond research. No organization should do this in isolation," she says. "Comparability is important."

WHERE?

Where to next? Considerations, cautions and communicating impact

Forum plenary sessions were balanced with peerto-peer breakout sessions where participants were initially grouped by sector, and then mixed crosssector, to explore the following questions:

- How can the CAHS Impact Framework, as an overall framework, be used to engage stakeholders in conversations about research impact?
- How can we use the Framework as a communication tool with stakeholders to have broader conversations about research impact (i.e. academic and wider impacts—informing policy and practice, health, social and economic benefit)?

- Given stakeholder interests and needs, how can the Framework best be used to meet those needs—to generate evidence of impact?
- What does the public need to know about research?

Choosing stakeholders

When grouped by sector, most delegates began their exploration of the questions by identifying who their stakeholders were first. The combined list they came up with includes the following, consistent with the stakeholders identified in the CAHS Impact Framework:



Figure 8. Forum delegates' identified stakeholder groups

Forum delegates agreed the stakeholders must be prioritized depending on their role in the impact assessment process. The concept of impact should be worked into the dialogue with stakeholders using a common language. **Providing the basis for a common language (e.g., through the use of standard definitions and terms) is a particular strength of the CAHS Impact Framework.**

Customizing the conversation within the CAHS Impact Framework

Once stakeholders are identified and prioritized, the Framework provides an entry point to engage in a discussion of impacts from their particular point of view.

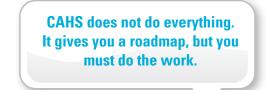
Many stakeholders will not be familiar with logic models or the professional practice of HRIA, so presenting them with the CAHS Impact Framework (or other impact models) may be overwhelming. The beauty of the Framework, however, is that it can be pared down and presented in pieces relevant to particular conversations.



Advantages the CAHS Impact Framework can bring to conversations with stakeholders

Builds stakeholder relations by supporting a collective and collaborative approach

- Provides a common language and definitions
- Educates and builds understanding of the research process
- Helps build understanding of various perspectives
- Helps stakeholders see themselves within the bigger picture
- Helps develop a compelling narrative of impact



Helps stakeholders select indicators and generate better metrics

- Expands conversations beyond single impacts or measures
- Helps moderate expectations of the results that can be achieved through health research, and by when (i.e., time lags)
- Applies to the 4As of stakeholder interest²⁵: Advocacy, Accountability, Allocation, and Analysis and Learning



Improves organizational performance

- Can be applied at the organizational level and aligned to strategic plans, program and/or project level initiatives
- Helps define and improve processes and protocols relative to the design, collection, analysis and reporting of HRIA results
- Supports ongoing monitoring of progress

Stakeholder considerations

General public: The public is keenly interested in better health, paying less for health care, and getting a good return on investment for their tax dollars.

The CAHS Impact Framework was seen by forum attendees as having the potential to be valuable in promoting the benefit of health research to the general public by demonstrating far-reaching impacts. The Framework would also help illustrate a broader picture of what such impacts could include and how health research will help us realize or achieve them.

However, forum attendees also suggested the mechanics and theoretical details of the Framework should take a back seat when engaging stakeholders who may not be familiar with it. Instead attendees suggested the results generated through application of the Framework and the stories that result should be the focus of stakeholder discussions. There needs to be a concerted effort among those involved in health research, its uptake and assessment to appeal to the public's beliefs, values, concerns, and hearts, rather than trying to engage intellect alone.

> Those who get promoted and stay within academia must be judged differently.

University leadership and researchers: It was felt that while university leadership may say they care about impacts beyond academia, current practices in university incentive systems do not align to this belief.

The question of whether universities and academia care about broader community impacts comes at the intersection of their research assessments and community engagement strategic planning. Forum attendees suggested that academic institutions need to change the way health research is valued and incentivized.

Funders: Funders need to know what they are getting for their investment. The CAHS Impact Framework helps them move beyond a narrow understanding of the measures that can be used to demonstrate impact.

Every funder has a framework and monitors and reports on investment results. The CAHS Impact Framework has the flexibility to align those frameworks and bring multiple stakeholders to common ground. The proposed benefit of adopting a common framework is that it offers a flexible yet consistent approach and language to guide HRIA while simultaneously allowing funders to remain responsive to their own reporting obligations and unique needs.

> The CAHS Impact Framework helps broaden thinking, especially when it comes to decision makers.

Overall convergence in HRIA nationally is needed to demonstrate the broad impacts of Canadian research and innovation investments in a consistent manner. To provide evidence that informs policy and tells the public story on the collective impacts, funders need to collaborate with diverse stakeholders. In particular, an active CoP, representative of the diverse stakeholder groups, can ensure a continued dialogue and a commitment to capturing and reporting on a broad range of impacts.

Government: The CAHS Impact Framework can help governments develop a narrative of the impacts that matter most to voters, while facilitating an understanding that the health research enterprise is complex and many health-related outcomes take time to be realized: timing that does not align with political cycles. The Framework can also help governments engage in conversations with stakeholders on priorities for investment, as well as support evidenceinformed policy: for example, through the identification of impact pathways, and/or to identify the information required (i.e., evidence) to inform decision making.

TAKE AWAY

The development of the CAHS Impact Framework has made Canada a world leader in HRIA.

The CAHS Impact Framework...

- Is flexible and adaptable. It is recommended that funders of health research refer to the CAHS Impact Framework when developing frameworks tailored to their own organizations.
- Adds value by offering a common language to facilitate conversations and understanding of the needs and expectations of stakeholders, to build common multi-stakeholder agendas, to align work and to share measurement systems.
- Adds value by facilitating consistent reporting, clear processes and strategic tie-ins.
- Helps generate evidence to support senior management buy-in, investment in data and new approaches, and informed policy and practice.

The effectiveness of any impact framework depends on the strength of a national CoP committed to continued international leadership in HRIA.

In conclusion

We are only at the tip of the iceberg. We know other agencies have applied the CAHS Impact Framework that were unable to participate in the forum including the University of Toronto, the Canadian Cancer Society Research Institute and other Not-for-Profit organizations in Canada, among others. We anticipate that other provinces will take the lead in hosting similar forums in the future, and we look forward to learning from our peers about new tools and promising practices in HRIA.







APPENDICES

I. CAHS Impact Framework sponsors and contributors

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- Saskatchewan Health Research Foundation (SHRF)
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- Canadian Medical Association (CMA)
- Canadian Nurses Association (CNA)
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ORGANIZATION

III. Program agenda

MONDAY October 19, 2015

Practice making perfect: The Canadian Academy of Health Sciences (CAHS) Impact Framework Forum

PROGRAM AGENDA

TIME	LOCATION(S)	SESSION		ROLE: WHO		
7:30-8:30 a.m.	Foyer	Event check-in & cor	tinental breakfast	AIHS Registration		
8:00-8:30 a.m.	Mackenzie/ Champlain room	Opening remarks &	keynote address	OPENING REMARKS: Pamela Valentine KEYNOTE ADDRESS: Paul Armstrong		
8:30-9:00 a.m.	Mackenzie/ Champlain room	PLENARY SESSION 1 CAHS impact framework 101		PRESENTER: Kathryn Graham		
9:00-9:30 a.m.	Mackenzie/ Champlain room	Networking ice breaker		FACILITATOR: David Phipps CO-FACILITATORS: Renata Osika & Dorothy Pinto		
9:30-9:45 a.m.		Networking break				
9:45-11:00 a.m.	Mackenzie/ Champlain room	PLENARY SESSION 2 Showcase: the "best of the best" in implementation		MODERATOR: Deanne Langlois PANEL PRESENTERS: 1. Nancy Carter 2. Leah Phillips	-Klassen 3. Cheryl Currie 4. Sean Rourke	
11:00 a.m 12:00 p.m.	Assignment by group: Each groups' room will be announced after Plenary Session 2: • Mackenzie/ Champlain room • Laurier room • Mayfair room	PEER-TO-PEER BREAKOUT SESSION 1 Implementation & use Breakout groups: by sector 1. Funders & Government 2. Academic 3. Healthcare/services 4. Not for Profit		BREAKOUT SESSION FACILITATORS & CO-FACILITATORS: 1. Nancy Carter & Melanie Winzer 2. Fiona Miller & Cheryl Currie 3. Sean Rourke & Leah Phillips 4. Renata Osika & Rick Riopelle		
12:00-1:00 p.m.	Mackenzie/ Champlain room	Lunch				
1:00-2:00 p.m.	Mackenzie/ Champlain room	PLENARY SESSION 3 Optimizing use: communicating impact to inform decision making		MODERATOR: Leah Phillips PANEL PRESENTERS: 1. Deanne Langlois-Klassen 2. Patrick Odnokon	3. Kit Johnson 4. Melanie Winzer	
2:00-3:00 p.m.	Multiple Rooms	CROSS-SECTOR GROUPS BREAKOUT SESSION 2 Communicating impact to inform decision making BREAKOUT GROUPS: CROSS SECTOR CROSS SECTOR ROOM Group A Mackenzie/Champlain room Group B Mackenzie/Champlain room Group C Laurier room Croup D Markeir room		BREAKOUT SESSION FACILITATORS & CO-FACILITATORS: A. Deanne Langlois-Klassen & Maxi Miciak B. Dorothy Pinto C. Renata Osika & Rick Riopelle D. Fiona Miller & Nancy Carter		
3:00-3:30 p.m.		Networking break	Group D Mayfair room			
3:30-3:45 p.m.	Mackenzie/ Champlain room	Reconvene: report back from breakouts		MODERATOR: David Phipps Breakout session facilitators		
3:45-4:45 p.m.	Mackenzie/ Champlain room	PLENARY SESSION 4 Future directions: promising practices and innovations in implementation		MODERATOR: Nancy Carter PANEL PRESENTERS: 1. Fiona Miller 2. Tim Murphy 3. Rick Riopelle		
4:45-5:00 p.m.	Mackenzie/ Champlain room	Closing remarks & wrap up		CLOSING REMARKS: Pamela Valentine WRAP UP: Renata Osika		
Wi-Fi: De				HOSTED I	BY Alberta Innovate Health Solutions	
@_AIHS_ #in	npact_cahs15 #AIHSpartne	ring		IN PARTNERSHIP V	WITH The National Alliance of Provine Health Research Organization Laliance canadienne des organiza provinciaux de la recherche en sa	

IV. CAHS/NSHRF impact evaluation framework

CAHS / NSHRF Impact Evaluation Framework

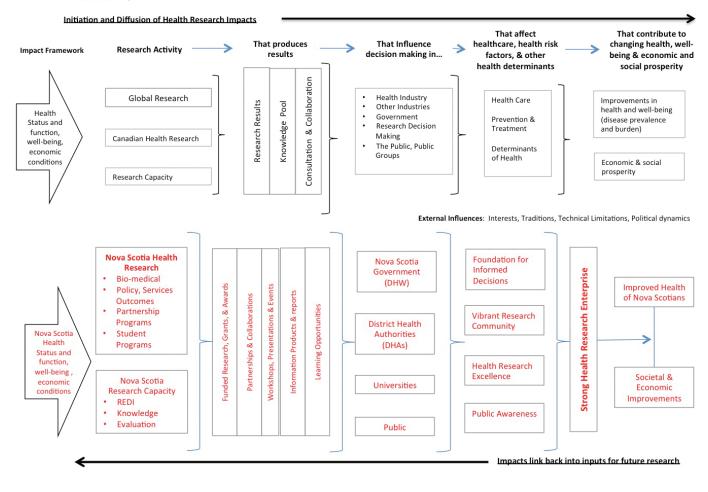


Figure 9. CAHS Impact Framework categories CAHS/ NSHRF impact evaluation framework

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